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CALIFORNIA CELERY PRICES, COSTS, AND MARGINS

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CALIFORNIA CELERY PRICES, COSTS, AND MARGINS

by

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ABSTRACT: The retail value of celery sold in Chicago and New York City increased an average of 55 cents per crate per year between 1964 and 1973. The wholesale and retail margin increased 38 cents per crate per year; rail transportation costs went up 7 cents; harvesting, packing and selling costs rose 6 cents; and grower returns rose 4 cents. The wholesaler's and retailer's share of the retail value increased slightly and the share taken by harvesting, packing and selling costs declined slightly. Other market shares, including the grower's share, changed little.

KEY WORDS: Celery, retail price, costs, margins, grower returns.

The average person in the United States consumed an estimated 7.6 pounds of fresh celery in 1973, up from 6.9 pounds 10 years earlier. Unlike declines for many other fresh vegetables during the last 40 years, consumption of celery per person remained fairly stable.

Celery is one of the more important fresh vegetables from a dollar standpoint. The U.S. farm value of celery in 1973 was over $106 million, 6 percent of the farm value of all vegetables grown for the fresh market. It ranked fifth in dollar value-behind lettuce, tomatoes, onions, and cabbage.

Celery is produced commercially in only 6 states. California and Florida together accounted for 90 percent of all U.S. commercially produced celery in 1973 (table 1). That year 17.1 million pounds of celery were produced in the U.S., 23 percent more than in 1964. All of the increased production during the decade occurred in California. Production in other States remained fairly constant. California's share of total production increased from 54 percent in 1964 to 63 percent in 1973.

This article discusses prices, marketing costs, margins, grower returns, and production costs for California celery. Data used are from a continuing costs and margins project on fruits and vegetables.

Procedures Explained

Celery was priced at two marketing levels-California shipping points and retail in Chicago and New York City. Retail prices were collected monthly by the Bureau of Labor Statistics in a sample of retail stores on Tuesday, Wednesday, and Thursday during the first week of the month containing a Tuesday. The shipping point price used is an average of daily prices for the week preceding the retail pricing week. Shipping point prices are reported by the Federal-State Market News Service. Monthly retail and shipping point prices are weighted by monthly carlot unloads of California celery in Chicago and New York City to obtain the average price for the season, which corresponds to the calendar year.

The retail value of a crate of celery is the return to the retailer for salable celery (retail price minus 7 percent allowance for spoilage loss during the marketing process.) Transportation costs are based on rail rates from Salinas, California to Chicago and New York City. Harvesting and packing costs are reported by the California Agricultural Extension Service. Grower returns are derived from shipping point prices by deducting harvesting and packing costs. The wholesale and retail margin is derived by

Table 1.—Celery: Production for fresh market and processing, selected States and United States, 1964-73

Season	California		Florida		Other States		Total
	Amount	Percentage of total	Amount	Percentage of total	Amount	Percentage of total	
	1,000 cwt.	*Percent*	*1,000 cwt.*	*Percent*	*1,000 cwt.*	*Percent*	*1,000 cwt.*
1964	7,419	54	4,419	32	2,018	14	13,856
1965	3,491	54	4,548	33	1,910	13	13,949
1966	8,087	55	4,873	33	1,690	12	14,650
1967	8,201	56	4,621	31	1,840	13	14,662
1968	9,195	60	4,349	28	1,903	12	15,447
1969	9,404	60	4,541	29	1,704	11	15,649
1970	9,690	63	4,012	26	1,630	11	15,332
1971	9,736	61	4,553	29	1,620	10	15,909
1972	9,886	62	4,772	30	1,363	8	16,021
1973	10,775	63	4,663	27	1,637	10	17,075

deducting the shipping point price plus the transportation cost from the retail value. This margin represents payment for wholesaling (assembly and warehousing), intra-city transportation, and retailing. These functions may be performed by one or more firms.

Production costs are based on sample costs reported by the California Agricultural Extension Service. Production costs are for counties producing 89 percent of 1973 crop. Certain 1973 costs were based on data for earlier years and were updated using appropriate indicies.

Prices, Costs, and Margins Increase

The retail price of celery increased sharply between 1964 and 1973. The U.S. average retail price (BLS) of celery was 24 cents per pound in 1973, 53 percent more than 9 years earlier. Retail price increases averaged slightly less than 1 cent per pound per year. However, retail prices fluctuated sharply during any given year. These changes were normally caused by shifts in celery supplies. Supplies were highly variable depending on acreage planted and weather conditions at planting time, during the growing season, and at harvest. Supplies often changed sharply within a matter of weeks. Although usually responsive to supply changes, retail celery prices were sometimes sticky and lagged behind changes in supply. Figure 1 shows the response of changes in monthly U.S. average retail price to changes in monthly 41-city celery unloads for 1971-72.

The retail value of a 60-pound crate of celery sold in Chicago and New York City averaged $13.65 in 1973, 57 percent higher than in 1964 (Figure 2). The wholesale and retail margin increased 71 percent, to $7.92-with most of the increase occurring after 1968. Rail transportation costs from California to Chicago and New York City, although practically unchanged from 1964 through 1967, went up 41 percent between 1967 and 1973. Harvesting, packing, and selling costs in California rose from $1.61 per crate in 1964 to $2.18 in 1973, a 35 percent increase. Returns to California growers increased 50 percent, from $1.07 to $1.60 per crate. Grower returns fluctuated yearly from 89 cents in 1968 to $1.65 in 1969.

A simple trend line fitted to the data in Figure 2 indicates that the retail value of celery sold in Chicago and New York City increased an average of 55 cents per crate per year since 1964. During the same period, the wholesale and retail margin increased 38 cents per crate per year; rail transportation costs rose 7 cents; harvesting, packing and selling costs went up 6 cents; and grower returns went up 4 cents.

The wholesaler's and retailer's share of the retail value of celery increased slightly during the 10 years. The share taken by harvesting, packing, and selling costs declined slightly. Other market shares, including the growers' share, did not show significant change. For the 10 years the wholesale and retail margin averaged 56 percent of the retail value, transportation costs 15 percent, harvesting, packing, and selling costs 17 percent, and grower returns 12 percent.

Retail Price Higher in New York City

Consumers in New York City paid a slightly higher average price for celery in most years than did Chicago consumers (tables 2 and 3). Price differences between the two cities ranged from 0.1 cent to 1.8 cents per pound. Higher retail prices reflected higher transportation costs to New York City. Costs of rail transportation were 29 to 59 cents per crate higher to New York City than to Chicago. Higher transportation costs to New York City were partially offset in some years by a higher wholesale and retail margin in Chicago.

Growers received slightly higher season average returns for celery sold in Chicago than in New York City in most seasons. Differences in season average grower returns are caused by weighting monthly shipping point prices by California celery carlot unloads in each city. Larger grower returns for celery sold in Chicago resulted from the proportionally

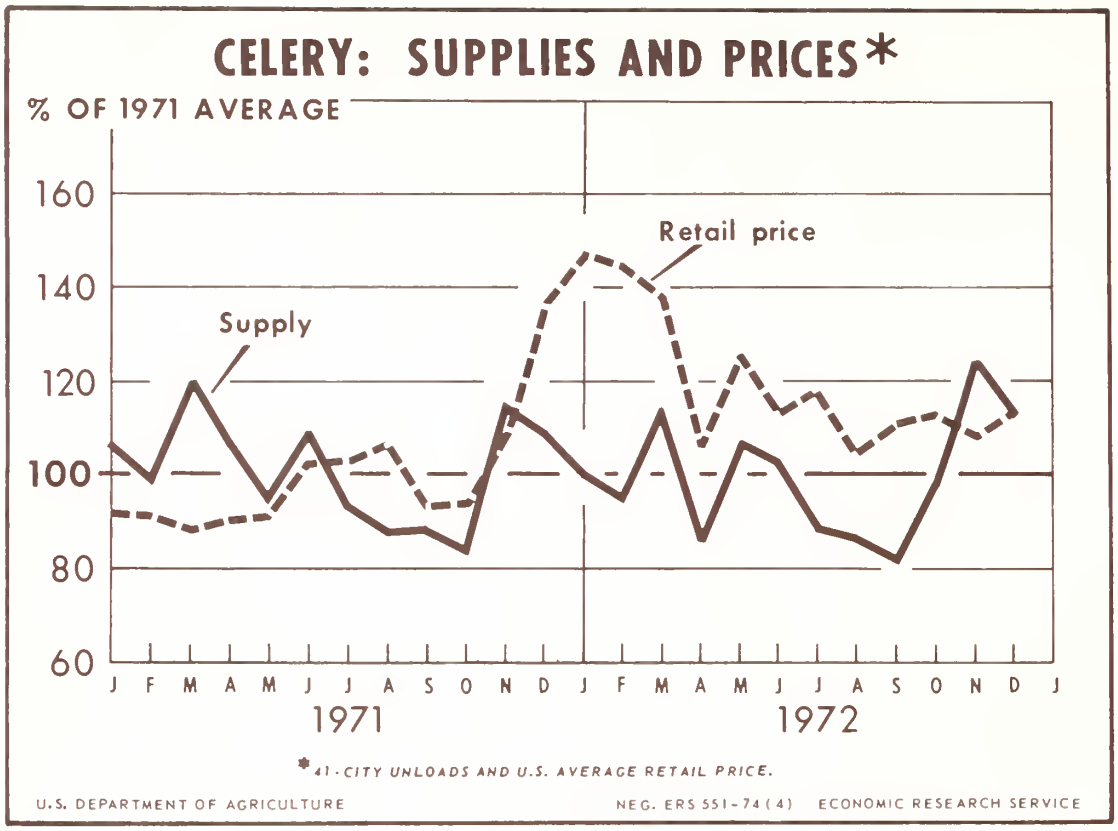

Figure 1

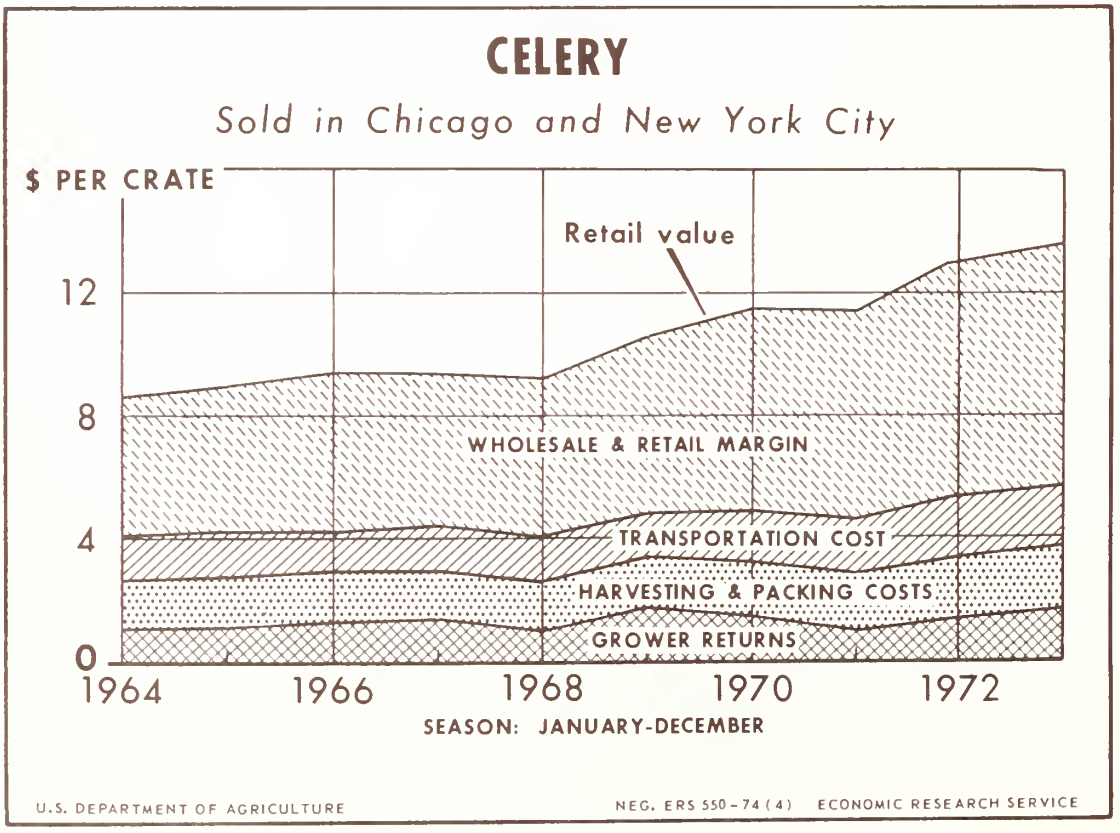

Figure 2

Table 2.—Celery: Seasonal average prices, costs, and returns, New York City, 1964-73[1]

Season	Retail price per pound	Retail value per crate[2]	Wholesale and retail margin		Transportation costs[3]		Harvesting, packing & selling costs[4]		Grower returns[5]	
			Per crate	Percentage of retail value	Per crate	Percentage of retail value	Per crate	Percentage of retail value	Per crate	Percentage of retail value
	Cents	*Dollars*	*Dollars*	*Percent*	*Dollars*	*Percent*	*Dollars*	*Percent*	*Dollars*	*Percent*
1964	15.4	8.58	4.46	52	1.47	17	1.61	19	1.04	12
1965	15.8	8.82	4.57	52	1.47	16	[6]1.65	19	1.13	13
1966	16.9	9.43	5.04	53	1.47	16	[6]1.67	18	1.25	13
1967	17.1	9.52	4.97	52	1.48	16	[6]1.71	18	1.36	14
1968	17.1	9.54	5.45	57	1.52	16	1.72	18	.85	9
1969	19.0	10.60	5.71	54	1.55	14	[6]1.78	17	1.56	15
1970	21.3	11.89	6.92	58	1.76	15	[6]1.82	15	1.39	12
1971	21.2	11.83	6.92	59	2.04	17	1.90	16	.97	8
1972	23.2	12.95	7.48	58	2.08	16	2.02	16	1.37	10
1973[7]	24.6	13.73	7.84	57	2.15	16	2.18	16	1.56	11

[1] 60 pounds per carton Season: January through December. [2] Returns to retailer for salable celery (7-percent allowance for loss during marketing process). [3] Rail costs from Salinas, California. [4] Sample harvesting, packing, and selling costs for California Celery. [5] Returns to California growers (F.o.b. shipping point price minus harvesting, packing and selling costs). [6] Estimated. [7] Preliminary.

Source: California Agricultural Extension Service.

Table 3.—Celery: Seasonal average prices, costs, and returns, Chicago, 1964-73[1]

Season	Retail price per pound	Retail value per crage[2]	Wholesale and retail margin		Transportation costs[3]		Harvesting packing & selling costs[4]		Grower returns[5]	
			Per crate	Percentage of retail value	Per crate	Percentage of retail value	Per crate	Percentage of retail value	Per crate	Percentage of retail value
	Cents	*Dollars*	*Dollars*	*Percent*	*Dollars*	*Percent*	*Dollars*	*Percent*	*Dollars*	*Percent*
1964	15.9	8.90	4.96	56	1.18	13	1.61	18	1.15	13
1965	16.9	9.44	5.45	58	1.18	13	[6]1.65	17	1.16	12
1966	16.8	9.36	5.23	56	1.18	13	[6]1.67	18	1.28	13
1967	16.3	9.09	4.98	55	1.19	13	[6]1.71	19	1.21	13
1968	15.7	8.76	4.87	55	1.22	14	1.72	20	.95	11
1969	18.8	10.49	5.68	54	1.26	12	[6]1.78	17	1.77	17
1970	19.5	10.88	6.12	56	1.36	12	[6]1.82	17	1.58	15
1971	19.1	10.66	6.40	60	1.49	14	1.90	18	.87	8
1972	23.5	13.11	8.03	61	1.52	12	2.02	15	1.54	12
1973[7]	24.2	13.50	8.07	60	1.56	12	2.18	16	1.69	12

[1] 60 pounds per carton, Season: January through December. [2] Returns to retailer for salable celery (7-percent allowance for loss during marketing process). [3] Rail costs from Salinas, California. [4] Sample harvesting, packing, and selling costs for California celery. [5] Returns to California growers (F.o.b. shipping point price minus harvesting, packing and selling costs). [6] Estimated. [7] Preliminary.

Source: California Agricultural Extension Service.

larger number of carlot unloads in months with high shipping point prices.

California Production Costs Increase

The cost of producing a crate of celery in California averaged $1 in 1973, 59 percent more than in 1964 (table 4). Labor was the largest single cost component, averaging 24 cents per crate or near one-fourth of total costs in 1973. The next largest component in 1973 was seeds and plants, costing 18 cents per crate. About half of California's celery is transplanted. As labor is required to produce plants, a sizable portion of plant costs is for labor. Cost of materials other than seeds and plants took 26 cents per crate in 1973, with fertilizer taking more than half of this amount. Herbicides and insecticides, used to reduce labor and equipment costs and increase yields and quality, accounted for the remaining material costs. Total equipment costs were 14 cents in 1973, with costs of fuel and repairs accounting for about one-half of the total. Rent and over head averaged 18 cents per crate in 1973.

Relative labor costs declined slightly between 1964 and 1973, from 26 percent to 24 percent of total costs. Costs of equipment and its operation showed a major increase. The share of total equipment costs during the 10 years leaped from 6 percent to 14 percent. With increasing labor costs, celery growers substituted more and larger equipment items for labor. The only other relative cost increase was for land rent, which rose from 8 percent to 12 percent. Growers in many

areas increasingly have to compete with other land uses. Some alternative land uses have pushed land values above profitable agricultural uses.

Relative costs of materials decreased between 1964 and 1973 from 56 percent to 45 percent. Many of these materials are derived from fossil fuels or are made with energy produced from these fuels. Prices of many of these materials have remained relatively constant during the last 10 years. With the recent price increases in fossil fuels, prices of these materials are expected to increase sharply.

Prices and Costs to Continue Increasing

Costs of producing and marketing celery are expected to continue rising for the next few years and may accelerate. Severe shortages of many inputs have resulted in rapidly increasing prices for those inputs. Prices of most are expected to either continue rising or remain high. Prices of other unputs such as labor, materials, and taxes are also expected to continue rising. Production and marketing cost increases will result in higher celery prices. If future price changes are similar to those of the last 10 years, the retail value of celery in Chicago and New York City would reach $16 per crate or 28 cents per pound by 1978. This assumes conditions similar to those of the last 10 years. Higher retail prices should be passed back through the marketing system with higher prices at each level. Grower returns, although highly variable depending on the size of each year's crop, would average above $1.65 per crate by 1978. The market shares of the retail value would be expected to change little.

Table 4.—Celery, California: Preharvest cost of production, 1964, 1973[1]

Cost Item	1973		1964	
	Dollars Per 60-lb. Crate	*Percent*	*Dollars Per 60-lb. Crate*	*Percent*
Labor[2]	0.242	24.3	0.162	25.6
Equipment:				
Fuel and Repairs	.068	6.8	0.11	1.7
Depreciation	.033	3.3	00.8	1.3
Interest on Investment	.012	1.2	.004	.6
Taxes	.003	.3	.001	.2
Water Pumping	.022	2.2	.014	2.2
Total Equipment	.138	13.8	.038	6.0
Materials:				
Seed and Plants[3]	.181	18.2	.148	23.3
Fertilizer	.157	15.8	.155	24.5
Herbecides and Insecticides	.107	10.7	.050	7.9
Total Materials	.445	44.7	.353	55.7
Rent	.124	12.4	.050	7.9
Overhead[4]	.047	4.8	.030	4.8
Total Costs	.996	100.0	.632	100.0

[1] Based on sample cost of producing California celery. [2] Includes social security and other benefit costs. [3] Adjusted for average transplant in California. [4] 5-percent of total costs to cover supervision, interest on operating expenses, and other general expenses.

Source: California Agricultural Extension Service.